Module 4: Disaster Medical Operations
Lesson 4-1: Introduction to Disaster Medical Operations

Module Overview

Welcome to Module 4: Disaster Medical Operations.

This module will help you to prepare for the classroom *CERT Basic Training* course in disaster medical operations. There's a lot that CERT members can do to assist professional responders during a disaster, but some of the most exciting and challenging work has to do with disaster medical operations, where time is critical and every second counts.

In this module, you will get a preview of the CERT role in disaster medical operations and how CERTs identify and treat common injuries. These and other essential topics are covered in three separate lessons. It should take about 2 hours and 25 minutes to complete this module:

- Lesson 4-1: Introduction to Disaster Medical Operations — **15 minutes**
- Lesson 4-2: Principles and Guidelines for Victim Care — **90 minutes**
- Lesson 4-3: Disaster Psychology — **40 minutes**

After completing this module, you should be able to:

- Identify the practices that CERTs must follow during disaster medical operations

Lesson Overview

Welcome to Lesson 4-1: Introduction to Disaster Medical Operations.

CERT members might have to act as first responders in a disaster until professional help is available. Victims may need life-saving or life-sustaining treatment, and in this lesson you will learn how CERTs are able to help. **Note:** You should **not** apply the medical treatment skills discussed in this lesson until you have learned how to perform them by completing the classroom training!

The other lessons in Module 4 will build on this foundation. A good understanding of these fundamentals will be helpful when you take the *CERT Basic Training* course in disaster medical operations.

After completing this lesson you should be able to:

- State the role of CERTs in disaster medical operations
- Identify safety precautions for medical operations workers

It should take about 15 minutes to complete this lesson.

Planning for Disaster

Like everything else in disaster response, preparedness is key in planning for medical operations. Therefore, CERT members should always assume that:

- Disasters often cause trauma-related injuries, and local medical resources may be overwhelmed or delayed in responding.
- Survivors of the incident will be the first source of help for victims and will need to know what to do to help.

Because professional responders may be delayed in getting to the scene, CERTs will need to be able to provide immediate care for life-threatening injuries.

What do you think "immediate care" might involve?

What CERTs Can Do

As a trained CERT member, you can provide help where it's needed most by conducting triage, by providing immediate care and life-saving and life-sustaining treatment, by performing head-to-toe assessments, by establishing medical treatment areas, and by managing disaster-related stress in yourself and in other survivors that you encounter.

CERT members can help where it's most needed by:

- Conducting triage
- Performing head-to-toe assessments
- Providing immediate care through life-saving and life-sustaining assistance
- Organizing medical treatment areas
- Helping to manage disaster-related stress felt by all survivors

CERT members are not alone in these tasks. They always work side by side with a partner, or "buddy." The CERT member and his or her buddy will support, encourage, and protect each other during disaster medical operations.

As this lesson continues, you will learn more about how CERT members protect themselves and their buddies while carrying out the role of first responder.

Triage: *Process of sorting victims according to the severity of their condition.*

Knowledge Review

A CERT activates in response to a tornado that dealt major damage to the neighborhood. What should CERT members assume as they prepare to deal with the medical needs of the victims?

A. Disasters often cause trauma-related injuries.
B. Local medical resources may be overwhelmed or delayed in responding.
C. CERT members must wait for professional responders before dealing with any life-threatening injuries.
D. Survivors of the incident will be the first source of help for victims and need to know what to do to help.

Answer:
All of the above

Speed Is Essential

One of the most challenging things about disaster medical assistance is the time constraint. It is important to be able to quickly size up injuries and understand their relative severity, because every second may mean the difference between life and death! CERT members have to prioritize victims' needs and adjust their own efforts accordingly.

Remember from earlier lessons that CERT members must complete a size up before taking action. This requires them to:

1. Gather facts
2. Assess and communicate the damage
3. Consider probabilities
4. Assess his or her own situation
5. Establish priorities
6. Make decisions
7. Develop plans of action
8. Take action
9. Evaluate progress

Time **can** be on a CERT's side: Neighborhood and workplace teams are often able to respond more quickly to immediate needs than professional responders are.

However…

The CERT Role

... Once professional responders do arrive, CERT members become secondary and must take direction from professionals if asked to assist.

The CERT Basic Training course will prepare you to help disaster victims, and teach you skills that may save lives.

The CERT Goal

A CERT member's **goal** is to act safely to do the greatest good for the greatest number of victims. This requires CERT members to:

- Size up the situation to determine if it is safe to act.
- Triage victims quickly, identifying those with the most serious injuries.
- Treat those with the most serious injuries first.

Knowledge Review

After a disaster, when CERT members respond to victims in their immediate area before professional responders arrive, their first priority will be to:

A. Triage victims and treat those with life-threatening conditions
B. Organize disaster treatment areas
C. Make sure they are wearing the appropriate safety equipment
D. Keep onlookers away from the victims

Answer:
C

Safety Equipment

All qualified CERT members use basic safety equipment called personal protective equipment (PPE). This includes work gloves, goggles, an N95 filter mask, a safety helmet, and sturdy shoes or boots.

In addition to this equipment, CERT members need to take special precautions when performing disaster medical operations. These measures protect them from blood-borne pathogens and other medical hazards.

Safety is the first step a CERT member takes — it comes before setting up a

medical response area, before conducting triage, and before beginning preliminary treatment.

In addition to standard CERT PPE, non-latex exam gloves are also needed when providing medical assistance. When you're working with a victim, **always** wear non-latex gloves, goggles, and a mask. Remember to always change or disinfect your non-latex gloves between victims.

You'll learn more on how to change and sterilize gloves during the classroom-based *CERT Basic Training* course.

Knowledge Review

Safety is of the utmost importance at a disaster site. Select the items that a CERT member should use as safety precautions during disaster medical operations.

A. Plastic sheeting
B. Non-latex gloves
C. Duct tape
D. Masks
E. Sterile hypodermic needles
F. Hydrogen peroxide
G. Goggles

Answer:
B, D, G

Keep Your Distance

Stop! Protect yourself. If there is evidence of chemical materials, do not approach.

In earlier lessons, you learned about avoiding dangerous situations such as hazardous materials and terrorist attack sites. In other words, another important part of protecting yourself is knowing when to stay away. There are also some medical situations that you should avoid.

Medical disasters caused by radioactive and chemical threats serve as stop signs for CERT members. Even with CERT PPE, these situations are dangerous. Rather than attempting to help on their own, CERT members should leave the area to avoid endangering themselves or spreading contamination.

Remember that only trained professionals with specialized equipment should respond to these medical disaster situations.

Death From Trauma

Medically, "trauma" refers to a serious or critical bodily injury or shock. Disasters often cause trauma-related injuries, but they can cause minor injuries, too.

Disaster trauma victims who die from their injuries can be divided into three categories according to their risk of death. Understanding these three phases can help CERT members use their training effectively, so that they can provide the best possible amount of assistance to victims.

Phases of death:

1. Those who will die within minutes as a result of overwhelming and irreversible damage to vital organs
2. Those who will die within several hours due to excessive bleeding
3. Those who will die within several days or weeks from infection or multiple-organ failure (i.e., complications of the injury)

Research shows that more than 40% of disaster victims in phases 2 and 3 can be saved by providing simple medical care — care that **you** will soon be able to give them. **You** can prevent death from disaster trauma!

Knowledge Review

Disaster trauma victims who die from their injuries can be divided into three categories. Briefly identify these categories. Write your answers below and compare to the answers given.

_____
_____
_____
_____
_____

Answer:

1. Those who will die within minutes as a result of overwhelming and irreversible damage to vital organs
2. Those who will die within several hours due to excessive bleeding
3. Those who will die within several days or weeks from infection or multiple organ failure (i.e., complications of the injury)

Lesson Summary

This lesson discussed disaster medical operations for CERTs.

Key points covered in this lesson include:

- The CERT goal is to stay safe and do the greatest good for the greatest number of victims.
- Trauma injuries in disasters can often result in death. Sometimes these deaths can be prevented through simple, early treatment. CERT members are trained to provide this treatment until medical professionals are available to help.
- Do not apply the medical treatment skills covered in this module until you have completed classroom *CERT Basic Training* course.

You've completed this lesson. You're now ready to begin Lesson 4-2: Principles and Guidelines for Victim Care.

Module 4: Disaster Medical Operations
Lesson 4-2: Principles and Guidelines for Victim Care

Lesson Overview

Welcome to Lesson 4-2: Principles and Guidelines for Victim Care.

In this lesson, you'll learn to identify key principles and practices for the medical care of disaster victims.

After completing this lesson you should be able to:

- Identify signs of an obstructed airway, excessive bleeding, and shock
- State the steps to follow to open an airway, control bleeding, and treat for shock
- Define *triage* and its purpose in disaster medical operations
- Explain why it is important to follow procedures for head-to-toe patient assessment
- Identify common injuries for which appropriately trained CERT members may provide basic care as part of disaster medical operations
- Identify factors that are considered when establishing medical treatment areas
- Identify public health measures required at a disaster site

It should take you about **90** minutes to complete this lesson.

Life-Threatening Conditions

There are three life-threatening conditions that always get first priority when you're treating victims. The conditions are often referred to as the "killers," implying that any time a victim has one of these conditions, he or she will require immediate attention.

The killers are:

- Obstructed airway
- Excessive bleeding
- Shock

This lesson will introduce opening the airway, controlling excessive bleeding, and recognizing shock.

Protect Yourself!

Before we start, remember: Always protect yourself. When you perform disaster medical operations, remember to:

- Work with a buddy
- Do a good sizeup
- Wear safety equipment such as gloves, goggles, mask, helmet, and boots
- Wear non-latex gloves
- Change or sterilize gloves between patients
- Avoid high-risk situations, such as hazardous materials

Obstructed Airway

The first "killer" is an obstructed airway. The tongue is the most common airway obstruction. If the victim is unconscious or semiconscious, the tongue may relax and block the airway, especially if the victim is lying on his or her back.

Immediately attend to a victim if he or she doesn't appear to be breathing. If you suspect the airway is obstructed, you'll need to attempt to open the airway to restore breathing.

Opening the Airway

To open the airway of a victim who appears to be unconscious, **look**, **listen**, and **feel** for air exchange. The proper steps are:

1. Shake the victim and shout: Can you hear me?
2. If the person doesn't respond, place your palm on the victim's forehead.
3. Place two fingers of the other hand under the victim's chin and lift the jaw while tilting the head back slightly.
4. Place your ear over the victim's mouth and your hand on the victim's stomach and look at the victim's chest.
5. Look for chest rise.
6. Listen for breathing.
7. Feel for abdominal movement.

Maintaining the Airway

Make one or two attempts to open the airway. If breathing is restored, the airway must be maintained in an open position with the head tilt. You have several options for maintaining an open airway.

- You can have a volunteer hold the head in place.
- Or you can place soft objects under the victim's shoulders to slightly elevate the shoulders and keep the airway open.

In the classroom *CERT Basic Training* course, you will learn more about these practices. You'll also learn to use them as they should be conducted in a disaster setting.

Knowledge Review

What is the most common airway obstruction in an unconscious or semiconscious victim?

A. Vomit
B. Blood
C. Tongue
D. A small object

Answer:
C

Excessive Bleeding

The second "killer" is excessive bleeding. If not controlled, excessive bleeding can cause weakness, shock, or death.

Uncontrolled bleeding first causes weakness. If the uncontrolled bleeding continues, the victim will go into shock within a short period of time. Death may then occur if a victim loses just one liter of blood. (An adult has about five liters of blood.)

Types of Bleeding

There are three types of bleeding, depending on the type of vessel that is injured. The type of bleeding can usually be identified by how the blood flows. There are three types:

Arterial
Spurting: Arteries transport blood under high pressure. Bleeding from an artery is bright red blood that spurts with every heartbeat.

Venous
Steady flow: Veins carry blood under low pressure. Bleeding from a vein is a steady flow of darker blood.

Capillary
Oozing: Capillaries also carry blood under low pressure. Bleeding from capillaries oozes.

Controlling Bleeding

There are three main methods you should use to control bleeding:

- Direct pressure on the wound
- Elevation
- Pressure points

Don't use these steps until you complete the *CERT Basic Training* classroom training. But let's take a look at each to give you a brief introduction.

Using Direct Pressure to Control Bleeding

You can use these three steps to control bleeding using direct pressure:

1. Put a clean dressing over the wound and press firmly.
2. Use a pressure bandage to maintain pressure on the dressing.
3. Tie the ends of the bandage over the wound with a bow instead of a knot. The bow allows the bandage to be loosened later to reduce the pressure if the extremity becomes numb or turns blue. A bow also allows the wound to be checked for infection. Then, the bandage can be retied, saving time and supplies.

Dressing: *A dressing is applied directly to a wound; a bandage holds the dressing in place.*

Using Elevation to Control Bleeding

You can use elevation in combination with direct pressure to control bleeding. To use this method:

- First, elevate the wound above the level of the heart. This helps stop the bleeding.

- Then, try to find a position that the victim can maintain with comfort. If necessary, you can prop the limb up with nearby objects.

It can take 5 to 7 minutes to completely stop the bleeding when using both direct pressure and elevation. Using a dressing and pressure bandage to maintain the pressure on the wound allows you to move on to the next victim.

Using Pressure Points to Control Arterial Bleeding

A pressure point is where a major artery to an arm or leg crosses over a bone. When you press firmly on a pressure point, you can slow or stop the flow of blood to the bleeding arm or leg.

The pressure points labeled in the diagram are the brachial points for the arms and the femoral points for the legs.

Knowledge Review

At a disaster scene, you have discovered a barely conscious victim bleeding profusely from a gash just above the knee. Blood is spurting rhythmically from the wound.

What methods could you use to control bleeding?

A. Put direct pressure on the wound.
B. Elevate the heart above the wound.
C. Elevate the wound above the heart.
D. Press on the brachial pressure point.
E. If still bleeding after 5 to 7 minutes, apply pressure to the femoral pressure point for that leg.

Answer:
A, C, and E

Shock

The third "killer" is shock, a disorder resulting from ineffective circulation of blood. If a victim remains in shock, it can lead to the death of cells, tissues, and entire organs.

The body can compensate for blood loss or poor circulation and initially may mask the symptoms of shock.

It's very important that you evaluate patients for shock and monitor their conditions continually.

Signs of Shock

How do I know if someone is in shock?

Recognizing Shock

A victim may display one or more signs of shock. There are several shock symptoms you should be able to identify. They include:

- Rapid, shallow breathing
- Capillary refill of greater than two seconds
- Failure to respond to a simple command, such as "Squeeze my hand"

Let's take a look at each of these symptoms.

Signs of Shock

There are three different signs of shock:

1. Slow Capillary Refill: A person experiencing shock may have slow capillary refill. This means the capillaries take longer than two seconds to refill and return the skin to normal color. Methods to check for capillary refill will be covered in the classroom training.
2. Rapid Breathing: A victim whose breathing is rapid and shallow could be in shock. The person's breathing will sound like panting and will be more than 30 breaths per minute.
3. Failure to Respond: The victim may fail to follow simple commands. Shock can make a traumatized person appear restless, nervous, or agitated, confused or dazed, or unaware of his or her surroundings. Try holding the person's hand and giving a simple command, such as: Squeeze my hand.

Knowledge Review

Which of the following statements are true about shock?

A. Shock results from the ineffective circulation of blood.
B. Remaining in shock can lead to the death of cells, tissues, and organs.
C. Slow, steady breathing is one sign of shock.
D. In most cases, the signs of shock are immediately apparent.
E. Victim may seem dazed or confused.

Answer:
A, B, E

Triage

Your understanding of how to identify the three "killers" will be critical when you conduct triage.

Triage is the process of sorting victims according to the severity of their condition. Your goal in triage is to identify victims who are having problems with the three "killers" and treat them immediately.

You usually begin triage at the incident site, as soon as victims are located. Evaluate victims for airway problems, excessive bleeding, and shock. Sort by those who need immediate treatment and those who can wait until others have been triaged.

Why and when should you use triage?

Benefits of Triage

You should use triage in situations where resources or time may be limited. Triage was initially created for use in the military. The military's experience has shown the process to be especially effective in situations where:

- There are more victims than rescuers
- There are limited resources
- Time is critical

This makes triage especially helpful for situations that CERTs may face.

Triage Categories

During triage, you will evaluate the conditions of victims and sort them into four categories:

- Immediate (I) - Victim has life-threatening injuries (airway, bleeding, or shock) that demand immediate attention to save the person's life.
- Delayed (D) - Injuries don't jeopardize the victim's life. The victim may need care, but it can be delayed while triaging other victims.
- Minor (M) -Victim has insignificant injury (e.g., minor abrasion on a knee.) The victim may need minor care, and might also assist rescuers in helping others with more serious injuries.
- Dead - Not breathing after two attempts to open the airway. There isn't time or resources to do CPR if others need immediate help.

All victims receive a tag with one of these markings to identify them. During your classroom training, you may learn a different tagging system used in your area.

Triage Precautions

Use caution when conducting triage! You should always be aware of your and your buddy's welfare as you take care of the victim. If you don't protect yourself, you can make the situation worse.

There are several precautions to take as you conduct triage, including:

- Avoiding hazardous materials
- Avoiding unsafe situations
- Wearing your safety equipment
- Wearing sterile gloves when treating victims
- Changing or sterilizing gloves between victims

You can also protect yourself with safety equipment, including goggles, dust mask, helmet, and sturdy shoes or boots. For gloves, a supply of exam gloves works best. If possible, when conducting triage, you should change exam gloves between victims to avoid cross-contamination.

Conducting a Triage Evaluation

Recognizing the three "killers" was introduced earlier in the lesson. Triage involves three steps for checking for the "killers":

1. Check airway and breathing.
2. Check bleeding and circulation.

3. Check mental status.

Following these steps will help you triage victims. And, in order to identify and treat life-threatening injuries as quickly as possible when there are multiple victims, CERT members must follow specific triage protocols.

In short, protocols are:

- If the victim fails the test for one of the three "killers," the status is "I."
- If the victim passes all tests, he or she can wait for delayed treatment, and the status is "D."
- Everyone gets a tag.

Remember, all "I's" get airway management, bleeding control, and treatment for shock before you and your buddy move to the next victim.

You will learn and practice triage protocols in the classroom training. Don't try these procedures until you have received classroom training!

Knowledge Review

The goal of triage is to:

A. Decide which CERT members will treat which victims.
B. Make sure that the workload is spread evenly among the rescuers.
C. Ensure an even flow of victims to the patient treatment areas.
D. Identify and treat victims who are "Immediates" as rapidly as possible.

Answer:
D

Patient Assessment and Treatment

Not all victims will have life-threatening injuries. Many will have less critical injuries requiring basic care.

Common injuries that may require initial treatment by CERT members during a disaster include:

- Burns
- Wounds
- Fractures, sprains, and strains
- Hypothermia

You can determine injuries by conducting a head-to-toe assessment.

What Is a Head-to-Toe Assessment?

After all victims in the area have been through triage, you can begin head-to-toe victim assessments.

Head-to-toe assessment allows you to determine, as clearly as possible, the extent of injuries. Then, you can determine what type of treatment is needed and document any injuries.

Be sure that you assess all victims! Injuries are not always immediately apparent; those who appear unhurt may be suffering, too.

What Are You Looking For?

During an assessment, you will look for indicators that help you determine the nature of the person's injury. Indicators may include bruising, swelling, and pain.

You should also try to find the "mechanism of injury." This is how a person has been hurt and may point to probable injuries.

Your assessment can be both hands-on and verbal.

Talk to the Victim!

If the victim is conscious, your assessment should be both hands-on and verbal. There are several important reasons to talk to the victim during assessment.

First, you need **to ask permission**. The victim has the right to refuse your help. You should always ask permission before you conduct the assessment.

Then, you should talk **to calm the person**. Tell the person who you are and what you are doing, to help reduce his or her anxiety.

Finally, **to obtain information,** you can ask questions**.** Ask the person to describe his or her symptoms and to tell you how the injury occurred.

Assessment Guidelines

There are several things you should keep in mind as you conduct a head-to-toe assessment. Follow these guidelines:

Be alert. Pay careful attention, using all of your senses. Look, listen, and feel for anything unusual.

Be thorough. Perform an entire assessment before beginning any treatment.

Be cautious. Treat all unconscious victims as if they have a spinal injury.

Be consistent. Conduct assessments systematically, the same way every time.

Knowledge Review

Should the following tasks be part of a head-to-toe assessment of a conscious victim? Select Yes or No for each task.

1. Y N Ask permission to conduct an assessment.
2. Y N Explain what you are doing.
3. Y N Assess the type and extent of injuries.
4. Y N Identify the mechanism of injury.
5. Y N Determine what kind of treatment is needed.
6. Y N Provide treatment for identified injuries as you find them.
7. Y N Document injuries.

Answer:

1. Y
2. Y
3. Y
4. Y
5. Y
6. N
7. Y

Identifying Neck, Spine, and Head Injuries

Stop!

Before you go any further, you must check for neck, spine, and head injuries. A neck, spine, or closed-head injury is extremely serious. This type of injury must be identified immediately so that important precautions can be taken.

Common signs of a neck, spine, or closed-head injury are:

- Change in consciousness
- Inability to move one or more body parts
- Severe pain or pressure in the head, neck, or back
- Tingling or numbness in extremities
- Difficulty breathing or seeing
- Heavy bleeding, bruising, or deformity of the head or spine
- Blood or fluid in the nose or ears
- Bruising behind the ear
- Raccoon eyes (bruising around the eyes)
- Uneven pupils
- Seizures
- Nausea or vomiting
- Mechanism of injury that could cause this type of injury, such as when a victim is found under collapsed building material.

A victim who exhibits any of these signs should be handled so as to avoid further injury.

Handling Neck, Spine, and Head Injuries

If someone has a neck, spine, or head injury, your main goal is to do no harm. To avoid further injury, keep the head, neck, and spine in a straight line during the assessment. This is called "in-line stabilization." Continue to keep it straight as you treat other life-threatening injuries.

You'll learn the technique and practice in-line stabilization in the classroom training.

Knowledge Review

The primary objective of treating a spinal or neck injury is to:

A. Prevent further injury by keeping the spine in a straight line.
B. Determine the extent of the injury.

C. Move the victim as quickly as possible to a treatment area.
D. Do nothing and wait for professional responders.

Answer:
A

Basic Care for Common Injuries

During your patient assessment, you may notice a wide variety of injuries. There are treatments you can learn for the following injuries:

- Burns
- Wounds
- Fractures, sprains, and strains
- Hypothermia

Basic information in this lesson will help you become familiar with the injuries and recommended treatments. **But remember, don't try to apply these treatments until you have had classroom training!**

Burns

Burns may be caused by heat, chemicals, electrical current, or radiation. The severity of a burn depends on:

- The temperature of the burning agent
- How long the victim was exposed
- Area of the body affected
- Size of the burned area
- Depth of the burn

Always use extreme caution around burn victims when there is no obvious cause for the burns. If the burns were caused by chemicals or radiation, you may be at risk.

Recognizing Burn Severity

The skin has three layers. Burns may affect one, two, or all three layers of skin.

The **epidermis** is the outer layer of skin. It contains nerve endings and is penetrated by hairs.

The **dermis** is the middle layer of skin. It contains blood vessels, oil glands, hair follicles, and sweat glands.

The **subcutaneous layer** is the innermost layer of skin, also called the hypodermis. It contains blood vessels and fat and overlies the muscle.

Skin layers are used to determine burn classifications.

Burn Classifications

Burns are classified into three degrees of severity, depending on the skin layers affected by the burn. The three categories are superficial, partial thickness, and full thickness.

Superficial burn

Skin layer:

- Epidermis

Symptoms:

- Reddened, dry skin
- Pain
- Possible swelling

Partial thickness burn

Skin layer:

- Epidermis
- Partial destruction of dermis

Symptoms

- Reddened, blistered skin
- Wet appearance
- Pain
- Possible swelling

Full thickness burn

Skin layer:

- Complete destruction of epidermis and dermis

- Possible subcutaneous damage

Symptoms:

- Whitened, leathery, or charred (brown or black)
- Painful or relatively painless

Treating Burns

You have three objectives when treating burns: cool the burn, avoid hypothermia, and cover to prevent infection.

Cool the Burn
Before you cool a burn you should first:

- Remove the victim from the burn source and put out flames.
- Remove smoldering clothing unless stuck to the skin.

You should begin the process of cooling the burn. If the skin or clothing is still hot, you can cool it by immersing it in cool water for about 1 minute. Or you can apply cool compresses wrung out in cool water. You can use soaked towels, sheets, or other cloths. And do not forget -- make sure you remove heated metal objects from the victim, such as watches and rings.

Avoiding Hypothermia
Be sure to use caution when you apply compresses. If you cool a burn too rapidly, you can cause hypothermia in some victims. Those most likely to exhibit hypothermia include:

- Infants
- Young children
- Older persons
- Victims with severe burns

To avoid hypothermia in these victims, do not cool more than 15 percent of the body surface area at one time. This should be about the size of one arm.

Covering
Cover the burn loosely with sterile dressings to keep air out and prevent infection. Follow your local protocols, which will determine whether dry or moist dressings should be used

Burn Treatment Do's and Don'ts

When you treat burns, remember these guidelines.

Do’s

- Do elevate burned extremities higher than the heart.
- Do treat all victims of third-degree burns for shock.

Don’ts

- Don't use ice. Ice causes vessel constriction.
- Don't apply antiseptics, ointments, or other remedies. Ointments hold heat in the burn area and will have to be scrubbed off later.
- Don't remove shreds of tissue or break blisters.
- Don't remove adhered particles of clothing. Instead, cut the clothing around the burn and leave the burned-in portion in place.

Knowledge Review

What treatments should you use on burns? Select Do or Don't for each statement.

1. Do Don’t Remove smoldering clothing.
2. Do Don’t Apply pain-relieving ointment to the burn.
3. Do Don’t Immerse hot skin in cool water for up to 1 minute or apply cool compresses.
4. Do Don’t Apply ice to the burn.
5. Do Don’t Cool up to 50 percent of the body's surface at a time.
6. Do Don’t Cover the burn with sterile dressings.
7. Do Don’t Elevate burned extremities higher than the heart.

Answer:

1. Do
2. Don’t
3. Do
4. Don’t
5. Don’t
6. Do
7. Do

Wounds

Wounds are common after disasters. Your objectives when treating a wound are to control bleeding and prevent secondary infection. You've already learned techniques to control bleeding. Now let's focus on preventing infection by cleaning and bandaging.

Wound Care: Cleaning

To clean dirt from a wound, follow this process:

- Irrigate the wound with water.
- Flush the wound with a mild soap-and-water solution.
- Irrigate the wound again with water.

In an emergency situation, you can use a bulb syringe — like a turkey baster — for irrigation.

Never scrub a wound!

Use sterile dressings and bandages to keep a wound clean after irrigating and to control bleeding.

Place a sterile dressing directly over the wound and secure it in place with a bandage. If the wound is still bleeding, use a pressure bandage to help control bleeding without interfering with circulation.

Wound Care Follow-up

Wound care follow-up depends on whether there is continued active bleeding.

If there is **no active bleeding**, remove the dressing, flush the wound, and check for signs of infection at least every four to six hours.

If there is **active bleeding** and the dressing is soaked with blood, redress over the existing dressing. Maintain pressure and elevation to control bleeding.

Be alert to an infection by noticing the signs. Signs of an infection include:

- Swelling around the wound site
- Discoloration
- Discharge from the wound
- Red striations from the wound site

Knowledge Review

After cleaning a wound and controlling bleeding, you should:

A. Leave the wound to air-dry
B. Apply an antibiotic spray, then bandage the wound.
C. Apply a sterile dressing and clean bandage
D. Apply ice to prevent future bleeding

Answer:
C

Fractures, Dislocations, Sprains, and Strains

In a disaster, victims often sustain injuries to bones and joints, and to the muscles and ligaments that surround them.

There are several general treatment techniques that you can use on all four injuries:

- First, you should remove restrictive clothing, shoes, and jewelry that could act as tourniquets during swelling.
- Next, immobilize the injury and the joints immediately above and below the injury. We'll discuss this splinting method in a few screens.

Now let's look a little closer at the different injuries.

Fracture

Fractures are the first injury you should be aware of. There are four types of fractures:

- Closed fracture: Broken bone doesn't puncture the skin.
- Open fracture: Bone protrudes through the skin. With this type of injury, the wound allows contaminants to enter the fracture site.
- Displaced fracture: Bone is no longer aligned. If the limb is angled, there is a displaced fracture.
- Nondisplaced fracture: Bone remains aligned. A nondisplaced fracture can be hard to identify. The main signs are pain and swelling.

Treating Open Fractures

Open fractures are high-priority injuries because of the risk of severe bleeding and infection. Treat them quickly and check them frequently. Follow the Do's and Don'ts for treatment.

Do’s

- Do cover the wound with a sterile dressing.
- Do splint the fracture without disturbing the wound.
- Do place a moist dressing over the bone end to keep it from drying out.

Don’ts

- Don't draw the exposed bone ends back into the tissue.
- Don't irrigate the wound.

Dislocations, Sprains, and Strains

You should also be aware of dislocations, sprains, and strains.

Dislocation

- Severe injury to the ligaments around a joint
- Bone separates from its normal position in the joint

Sprain

- Stretching or tearing of ligaments at a joint
- Usually caused by stretching or extending the joint beyond its normal limits
- Considered a partial dislocation
- Bone either remains in place or falls back into place after the injury

Strain

- Stretching and/or tearing of muscles or tendons
- Most often involves the muscles in the neck, back, thigh, or calf

Treating Dislocations, Sprains, and Strains

You may have difficulty identifying dislocations, sprains, and strains. The signs are often similar to those of a fracture. Symptoms may include:

- Tenderness at the site of the injury
- Swelling and/or bruising
- Restricted use or loss of use

Treat these injuries as fractures by immobilizing the injury.

Don't try to relocate a suspected dislocation!

Splinting

You can use splinting to immobilize an injured limb. Follow these basic guidelines for splinting:

1. Support the injured area above and below the site of the injury.
2. If possible, splint the injury in the position that you find it.
3. Don't try to realign bones.
4. Immobilize above and below the injury.
5. After splinting, check for proper circulation, including color, warmth, and sensation.

CERT classroom training will provide you with instruction and practice in splinting.

Knowledge Review

When treating an open fracture, which of the following treatments should be used?

A. Place a moist dressing over the bone end
B. Realign the bone ends, then apply a splint
C. Cover the wound with a sterile dressing
D. Irrigate the wound with soapy water
E. Splint the fracture without disturbing the wound
F. Draw the exposed bone ends back into the tissue

Answer:
A, C, and E

Hypothermia

Another injury you should look out for is hypothermia. Hypothermia occurs when the body's temperature drops below normal. It can occur in a matter of minutes.

Hypothermia is most often caused by:

- Exposure to cooler air or water

- Inadequate food combined with inadequate clothing and heat — especially in older people

What Are Signs of Hypothermia?

How can I tell if someone has hypothermia?

Symptoms of Hypothermia

You can tell if someone has hypothermia by looking at both primary and secondary signs and symptoms:

Primary:
- Body temperature of 95ºF (35ºC) or less
- Redness or blueness of the skin
- Numbness accompanied by shivering

Secondary:
- Slurred speech
- Unpredictable behavior
- Listlessness

Treating Hypothermia

You can treat victims who are at risk for hypothermia by warming and protecting them. Follow these do's and don'ts:

Do’s

- Do remove wet clothing and wrap the victim in a blanket or sleeping bag that covers the head and neck.
- Do protect victims from the weather.
- Do provide warm, sweet drinks and food if the victim is conscious and coherent.
- Do place an unconscious victim in the recovery position: on his or her side with knees drawn up.

Don’ts

- Don't attempt to warm the victim by massaging arms or legs.
- Don't let victims walk around, even if they seem fully recovered.
- Don't offer victims alcohol.

Caution!

Remember that you haven't been trained to perform CERT functions. Proper CERT training requires classroom-based instruction and supervised practice!

Knowledge Review

Which of the following treatments are appropriate for a victim with hypothermia?

A. Remove wet clothing
B. Massage extremities to increase blood flow
C. Wrap the victim in a warm blanket
D. Encourage the victim to walk around to speed circulation
E. Give the victim cocoa and cookies if conscious and coherent
F. Offer the victim warmed whiskey
G. Put the victim in a place that is sheltered from the weather

Answer:
A, C, E, and G

Medical Treatment Area

Now that you've identified injuries, you need to have a place for victims to wait for treatment, such as a medical treatment area.

Disaster medical operations are divided into four major components: triage, transport, treatment, and morgue.

Triage
The initial sorting of victims based on the severity of their injuries. Triage begins wherever victims are found, as part of search and rescue.

Transport
The movement of victims from triage to the treatment area. If professional help will be delayed, CERT members may transport victims to the treatment areas.

Treatment
Where victims receive emergency medical services. It’s divided into two areas: immediate care and delayed care.

Morgue
A temporary holding area for victims who have died.

Medical Treatment Areas

All four components are important. We've covered triage. Right now let's focus on medical treatment areas.

Organizational Issues

You can ensure that medical operations run efficiently during a disaster through organizational planning before a disaster occurs.

Your planning should address personnel assignments, provision of area markings, and documentation.

Begin with personnel.

Personnel Assignments

Personnel assignments are crucial to the effective operation of a CERT. To begin with, the CERT will assign leaders to maintain control in each of the medical treatment areas.

The treatment leader in each treatment area ensures orderly victim placement. The leader then directs assistants in conducting patient assessments.

Area Markings

A clearly marked treatment area and morgue helps CERT members and professional responders efficiently treat victims.

Prepare materials in advance so that they're available for immediate use. Materials include signs and, if possible, ground covers or tarps.

Use signs to identify areas for victims tagged "I," "D," "M," and "Dead." Ground covers or tarps can help to clearly mark the areas. Then volunteers will know exactly where to take victims, and those marked "I" can immediately receive treatment.

If they're willing, victims at the treatment area with minor injuries, tagged "M," may be able to assist trained CERT members.

You'll learn more about protocols and smart practices for setting up a CERT treatment area in the *CERT Basic Training* course.

Documentation

Thorough documentation of victims in the treatment areas and morgue is a must.

You should document the following information for each victim:

- Available identifying information
- Physical description -- age, sex, body build, estimated height
- Clothing
- Injuries
- Treatment
- Transfer location

This documentation then provides you with valuable sources of information for:

- Estimating the number of casualties by degree of severity
- Deploying resources effectively
- Tracking individual victims

The CERT classroom training provides additional information and forms for documenting victims in the medical treatment area. You'll also learn about documenting other CERT operations and activities in the disaster setting.

Knowledge Review

It's the responsibility of medical treatment area leaders to:

A. Choose the best site for the medical treatment area
B. Oversee arrangement and assessment of victims
C. Conduct all patient evaluations
D. Manage the transport of victims into the treatment areas

Answer:
B

Public Health Considerations

Public health becomes a concern when disaster victims are grouped together for treatment

To protect the public health and avoid the spread of disease, you should:

- Maintain hygiene

- Maintain sanitation
- Use water purification (if necessary)

These are seemingly simple measures that can further protect lives when done properly.

Maintaining Hygiene

Proper hygiene is crucial wherever medical operations take place — even under makeshift conditions. There are a few important measures you can take to maintain hygiene.

Washing Hands

- Wash hands frequently.
- Use soap and water.
- Hand-washing should be thorough -- at least 12 to 15 seconds.
- Use an antibacterial scrub, if possible.
- Hand sanitizer can be used

Wearing sterile gloves

- Wear sterile gloves at all times.
- Change or disinfect gloves after examining and/or treating each patient.
- Under field conditions, you can use rubber gloves that are disinfected between victims using diluted bleach of one part bleach to 10 parts water.

Wearing a mask and goggles

- Wear a mask. If possible, choose a dust mask that is rated N95. This type of mask will filter particles as small as 3 microns.
- Wear goggles to protect the eyes from splashed and airborne contaminants.

Using bandages and dressings

- Cover all open wounds to help prevent infection and the spread of disease.
- Keep bandages and dressings sterile.
- Don't remove the overwrap from bandages and dressings until you are ready to use them.
- After opening, use the entire bandage or dressing, if possible.

Staying away from body fluids

- Avoid contact with body fluids. Gloves, mask, and goggles provide an important barrier.

- If you come in contact with body fluids, thoroughly wash contaminated areas as soon as possible.
- Use soap and water or diluted bleach.

Maintaining Sanitation

Proper sanitation is a must in the medical treatment area. Proper sanitation helps prevent infection and the spread of disease.

To maintain sanitary conditions, medical personnel should:

- Put waste products, such as exam gloves and dressings, in plastic bags. Tie off the bags and label them "medical waste."
- Keep medical waste separate from other trash, and dispose of it as hazardous waste. CERTs follow local regulations for disposing of these waste products.
- Bury human waste.

Using Purified Water

As a rescuer, you shouldn't put anything on wounds other than purified water. The use of other solutions on wounds, such as hydrogen peroxide, must be the decision of trained medical personnel.

Because potable water supplies are often in short supply or unavailable in an extreme emergency, it may become necessary to purify water before using it.

Methods for Purifying Water

In a disaster situation, potable water may be unavailable. Therefore, always purify water for drinking, cooking, and medical use with one of the following methods.

Heat method

- Heat water to a rolling boil for 1 minute.

Water purification tablets

- Use iodine or chlorine tablets to kill waterborne pathogens. When using these tablets, follow the product directions provided.

Bleach

- Use unperfumed liquid bleach. Add 8 drops of bleach for each gallon of water. Mix well and let the bleach/water solution stand for 30 minutes.
- If the solution doesn't smell or taste of bleach, add another 8 drops of bleach and let the solution stand for 15 minutes before using.
- If the water is cloudy, double the recommended dosage of bleach.

Knowledge Review

There is heavy flooding in the wake of a hurricane. Widespread power outages have occurred, and the water supply has been contaminated.

Mark which techniques you can use to maintain hygiene when treating victims.

1.	Yes	No	Wash or sanitize your hands frequently
2.	Yes	No	Wear exam gloves and change or disinfect them after each patient
3.	Yes	No	Wear a mask and goggles
4.	Yes	No	Avoid contact with body fluids
5.	Yes	No	Pour a water/bleach solution over all bandages before use

Answer:

1. Y
2. Y
3. Y
4. Y
5. N

Remember!

Remember that you haven't been trained to perform CERT functions. Proper CERT training requires classroom-based instruction and supervised practice.

Don't try to use the procedures introduced in this lesson and course until you've completed the CERT classroom training.

Lesson Summary

This lesson discussed principles and guidelines for care of victims by CERT members.

Key points covered in this lesson include:

- The three "killers" — obstructed airway, excessive bleeding, and shock
- Purpose of triage
- Purpose and importance of head-to-toe assessment
- Neck, spine, and head injuries
- Common injuries, such as burns and wounds
- The purpose of medical treatment areas
- Public health concerns after disasters

You've completed this lesson. You're now ready to begin Lesson 4-3: Disaster Psychology.

Module 4: Disaster Medical Operations
Lesson 4-1: Disaster Psychology

Lesson Overview

Welcome to Lesson 4-3: Disaster Psychology.

In this lesson, you'll learn about the actions that CERT members can take to deal with the psychological stresses that are associated with disaster response.

After completing this lesson you should be able to:

- State why dealing with disaster-related stress is important
- Identify steps you can take to relieve your own stressors, both individually and as part of a team
- Identify ways to help survivors with disaster trauma

It should take you about **40 minutes** to complete this lesson.

Coping With Disaster

During and after a disaster, both survivors and responders may experience situation-related stress. It's important for CERT members to understand the possible effects of these stressful events and how to cope with or lessen their effects.

In this lesson, you'll learn the steps that CERT members use to manage vicarious trauma.

Vicarious Trauma: *The emotional shift that can occur when CERT members interact closely with disaster victims.*

The CERT Role

Disasters generate pain, suffering, loss, and grief on an enormous scale. CERT members have the role of stabilizing disaster scenes by stabilizing the individuals who have been affected.

But this job can be hard to do if CERT members are suffering their own personal stress from the disaster. This, together with the stress of vicarious trauma, can lessen CERT members' effectiveness during an emergency situation.

Can you think of any measures that CERT members should take to protect themselves from vicarious trauma?

Household construction level with air bubble in the middle, moving slightly left and right. Text reads: CERT members stabilize disaster situations by stabilizing the people who have been affected.

Protect Yourself!

There are three important measures that CERT members can take to protect themselves from the effects of vicarious trauma. These three measures can be divided into the "do's and don'ts" of disaster psychology.

Do

- Do be alert to signs of disaster trauma in yourself.
- Do take steps to reduce stress.

Don’t

- Don't over-identify with other survivors. This increases your own stress.

Knowledge Review

What is a CERT member's primary psychological role in a disaster?

A. Keep victims from getting angry or depressed
B. Stabilize the scene by stabilizing individuals
C. Provide psychological counseling
D. Convince survivors that their situation is better than it appears

Answer:
B

Don't Over-Identify

Let's break down the three ways that CERT members can protect themselves from psychological trauma during a disaster.

First, it is extremely important for CERT members to keep their emotional distance from other survivors. As CERT members work with and listen to disaster victims,

they'll probably have many of their own thoughts and feelings about the situation, creating added stressors.

If CERT members take on survivor feelings as their own, their stress level will increase and their level of effectiveness will decrease.

Recognize the Signs

Second, CERT members must carefully monitor themselves for signs of disaster-related trauma. By being alert to their reactions and state of mind, CERT members can help to alleviate their own stress.

Symptoms of stress can be **psychological, physical,** or **both.** Can you think of any examples?

The following types of psychological and physiological responses may be observed in survivors after a disaster:

Psychological symptoms

- Irritability or anger
- Self-blame or the blaming of others
- Isolation and withdrawal
- Fear of recurrence
- Feeling stunned, numb, or overwhelmed
- Feeling helpless
- Mood swings
- Sadness, depression, and grief
- Denial
- Concentration and memory problems
- Relationship conflicts and marital discord

Physiological symptoms

- Loss of appetite
- Headaches or chest pain
- Diarrhea, stomach pain, or nausea
- Hyperactivity
- Increase in alcohol or drug consumption
- Nightmares
- Inability to sleep
- Fatigue or low energy

Knowledge Review

Scott, a CERT member, responded to the disaster scene in his town after a devastating tornado. He spoke to many people who had lost their homes and possessions. Some people had lost family members. Gradually, Scott developed feelings of overwhelming sadness and hopelessness.

What are Scott's feelings an example of?

A. Transference
B. Stress
C. Vicarious trauma
D. Survivor trauma

Answer:
C

Reduce Stress

The **third** way that you can manage the effects of disaster trauma is to take preventive action to reduce stress.

Only **you** can determine what strategies work for you. If you identify your personal stress reducers before an incident occurs, you'll be better prepared to cope during disaster situations. A great way to practice reducing stress is by attending to the physical, emotional, psychological, and mental health needs in your daily life.

Slideshow animation: Bed representing sleep, food pyramid representing a balanced diet, bicycle representing exercise, and a red heart representing connection with others. Animation ends with all five and the words: All of these things help to reduce stress!

Stress Reducers

That's right! Stress reduction is something you can practice through daily activities.

Meet Your Physical Needs: Get enough sleep, exercise, and eat a balanced diet. Establish a moderate balance of work, pleasure, and downtime.

Meet Your Emotional Needs: Connect with others. Allow yourself to receive as well as give support.

Meet Your Psychological and Spiritual Needs: Use spiritual resources. If necessary, be willing to talk to mental health professionals.

Team Strategies

But how do CERT members cope with disaster-related stress?

CERT members can take advantage of their team to help them cope with the stress of disaster trauma. The CERT organization provides psychological support for all of its workers, and Team Leaders help members to establish **strategies** for dealing with stress.

The strategies fall into four main categories:

1. Training and communication
2. Teamwork
3. Pacing
4. Nutrition

Knowledge Review

Can you think of how a training and communication strategy can be used to reduce CERT member stress? Write your answers below and compare to the answers given.

_____
_____
_____
_____
_____

Answer:

Training: Team Leaders encourage members to get stress management training.

Briefings: At the start of an incident, team leaders brief CERT personnel about the current situation and what they may see. This information helps dispel anxiety and helps team members prepare emotionally for the experience.

Teamwork Strategy

The Team Leader emphasizes the team aspects of CERT to remind members that they are not alone in their often difficult duties.

Team Focus: Working together and looking out for each other is an important method of combating stress.

Team Sharing: Team members should share not only the workload but also the emotional load. Team sharing helps to defuse pent-up emotions.

Pacing Strategies

Pacing strategies can also help CERT members deal with the stress of disaster work. Pacing strategies include breaks, rotation, and gradual phase-out.

Breaks allow rescuers to rest and regroup. Mental or physical fatigue reduces worker effectiveness and may result in unsafe acts, so it's important to encourage workers to take breaks **away** from the incident area to talk about their experiences.

Rotation allows members to move from high-stress to low-stress duties whenever possible, reducing the mental and physical strain of disaster work.

Gradual phase-out simply means that workers should be removed from the response effort gradually, and moved from high-stress to low-stress duties before leaving the scene.

The animation to the right suggests how CERT members cycle back and forth between low-stress and high-stress duties.

Nutrition Strategy

Finally, nutrition is an important strategy that CERT members use to cope with stress during a disaster. Teams use their rotated breaks to drink water and eat healthy foods, such as fruit and granola bars, avoiding excessive caffeine and refined sugar products in their snack choices.

As we discussed earlier, eating a healthy, balanced diet helps to reduce stress. On a disaster scene, it also helps to maintain alertness. Don't wait until you feel hungry or thirsty to take a break. If you feel thirsty, you're already dehydrated!

Knowledge Review

Amy is a Team Leader whose CERT has completed stress management training. Her team is activated and responds after a major earthquake. From experience, Amy knows that a high-magnitude earthquake causes a significant number of injuries and widespread damage and destruction.

As Team Leader, what can Amy do to reinforce her team's stress management training and provide psychological support for its members? Write your answers below and compare to the answers given.

_____
_____
_____
_____
_____

Answer:

There are many strategies Amy can use as a CERT Team Leader to provide psychological support for her team members. She can:

- Brief members on what they can expect
- Emphasize team focus and encourage team sharing
- Create break times so that members can rest and regroup
- Rotate members away from the disaster scene during their breaks
- Gradually phase team members out of the response effort
- Ensure team member nutrition by telling them to drink water and allowing them to take meal breaks

Survivor Trauma

It's important for CERT members to understand potential survivor reactions. Anticipating certain reactions can help workers reduce their own stressors and improve their ability to respond effectively to the situation. We have already discussed a few possible psychological effects that disaster can have on both survivors and CERT workers.

But what about the emotional effects?

Emotional Phases

Survivors go through emotional phases when a disaster occurs. Four of these include:

- Impact Phase: Occurs at the time of the initial event. Survivors do not panic and may often show no emotion whatsoever.
- Inventory Phase: Immediately follows the event. Survivors assess damage and try to locate other survivors, usually searching for people who can help in rescue operations.
- Rescue Phase: Occurs when emergency services personnel — including CERTs — are responding. It is important for responders to identify themselves with helmets and vests, because survivors will take instructions from them without protest.
- Recovery Phase: Occurs when victims begin to realize the reality of the situation. They begin to understand that their lives will never be the same, and they may become angry or react negatively toward their rescuers.

Knowledge Review

Disaster survivors go through distinct psychological phases. Place the phases in the correct order.

___ Inventory Phase
___ Recovery Phase
___ Impact Phase
___ Rescue Phase

Answer:
2, 4, 1, 3

Traumatic Stress

As we've discussed, survivors suffer from disasters on many levels. This is because **traumatic stress** is capable of affecting survivors in three major areas of their lives: cognitive functioning, physical health, and interpersonal relationships.

- Signs that a survivor's **cognitive functioning** has been affected appear when he or she acts irrationally or in ways that are out of character, or has difficulty making decisions and retrieving or sharing memories.
- **Physical** symptoms of traumatic stress may be chills, thirst, twitches, and muscle tremors, as well as fatigue, dizziness, weakness, and fainting. Nausea and headaches, elevated blood pressure, a rapid heart rate, and chest pain may also result.

- **Interpersonal relationships** may be affected because of a survivor's temporary or long-term personality changes.

Each person's reaction to a traumatic event will be different.

Traumatic Stress: *the emotional, cognitive, behavioral, physiological, and spiritual experience people have when they are exposed to or witness events that overwhelm their coping or problem-solving abilities.*

Mediating Factors

There are five mediating factors that may affect the strength and type of an individual's reaction to a traumatic event. These mediating factors include:

Prior experience with the same or similar event: The emotional effect of multiple events can be cumulative, leading to progressively greater stress reactions.

Intensity of the disruption in the survivor's life: The more the survivor's life is disrupted, the greater his or her psychological and physiological reactions may become.

Meaning of the event to the individual: The more catastrophic the victim perceives the event to be, the more intense his or her stress reactions will be.

Elapsed time since the event: The reality of a traumatic event takes time to "sink in."

The fifth possible mediating factor is the **emotional well-being** of the victim and the **type of resources** that he or she has for coping. People who have had other recent traumas may not cope well with additional stresses. Social resources are especially important coping mechanisms; people with fewer social connections or outlets may not cope as well as their well-connected peers.

As you can see, survivors often feature a range of responses. Victim reaction varies from person to person, and the reactions CERT members see are part of the psychological impact of the event. A survivor's negative response may not relate to anything a CERT member has done.

Therefore CERT members should NOT take survivors' attitudes personally!

CERT Psychological Role

As we discussed earlier in the lesson, a CERT member's on-scene psychological role is to stabilize the disaster area by stabilizing individuals. There are four ways that CERT members go about this essential duty. They:

Step 1: **Assess** survivors for injury and shock

Step 2: **Involve** uninjured people in helping at the scene

Step 3: **Provide** support by listening and empathizing

Step 4: **Help** survivors connect to natural support systems

Disaster Psychology Scenario

It's a Wednesday morning inside a shopping center in a small city. A tornado touches down near the center, causing damage and injuring shoppers. Members from the local CERT Program arrive on the scene to help and set up a command post in the parking lot.

Scenario Question 1

The CERT members have arrived at the scene and are ready to work. But before they begin to assist victims, they need to prepare. Which of the following are basic safety precautions the team should take?

A. Avoid hazardous materials.
B. Do nothing until professionals arrive.
C. Avoid unsafe situations.
D. Give their dust masks to victims.
E. Use proper personal protective equipment: helmet, goggles, mask, gloves, sturdy shoes or boots.

Answer:
A, C, and E

Scenario Question 2

Though they won't actually tag anyone, it's time for CERT members to conduct a triage evaluation. Two team members, Vince and Carly, begin to talk to victims and gauge their injuries. First, they meet Bernadette and Lucy. What are the three "killers" Vince and Carly should look for in their evaluation?

A. Shock
B. Superficial bruises on head
C. Obstructed airway
D. Broken limb
E. Dilated pupils
F. Uncontrolled bleeding

Answer:
A, C, F

Scenario Question 3

Lucy has a headache but is alert. Other than a few bruises, she doesn't appear to have any other injuries. Bernadette has a bleeding head wound. She's also having trouble catching her breath. Based on what the CERT members observed, does Bernadette or Lucy require more immediate care?

A. Bernadette
B. Lucy

Answer:
A

Scenario Question 4

CERT member Carly is examining Lucy. Lucy insists that she is fine and just wants to go home. Since nothing is physically wrong with her, she thinks that she'll be fine and that she'll go home and forget about it. What are some effects of traumatic stress that Lucy might experience?

A. Thirst
B. Dizziness and fainting
C. Difficulty making decisions
D. Elevated blood pressure
E. Muscle tremors
F. Acting in ways that are out of character

Answer:
All

Scenario Question 5

Vince is still working with Bernadette. She is becoming increasingly distraught as Vince talks to her. Bernadette has a head injury but wants to get up and talk to others. She insists she must speak to her neighbor, whom she saw shopping before the tornado hit. Which of the emotional phases of a crisis is Bernadette likely experiencing?

A. Impact
B. Inventory
C. Rescue
D. Recover

Answer:
B

Scenario Question 6

Vince and Carly are still talking to Bernadette and Lucy. The psychological role of CERT in a disaster is to help stabilize the incident scene by stabilizing individuals. What should the CERT member do to stabilize the scene?

A. Help survivors find their loved ones
B. Remove survivors who are ready to leave the scene
C. Assess the survivors for injury and shock
D. Assist in any police investigation after all survivors have been helped
E. Provide support by listening and empathizing
F. Involve uninjured people in helping
G. Help survivors connect to natural support systems

Answer:
C, E, F, G

Scenario Question 7

Sitting with Carly, Lucy begins to talk about herself. She's 21, has a younger brother at home, and is planning a trip with a friend next weekend. As she's talking, Carly can't help but think about her own daughter and young son. Her

daughter is the same age as Lucy, and they like the same kind of music. Now Carly begins to worry about her own family. What could Carly be experiencing?

A. Denial
B. Transference
C. Post-traumatic stress disorder
D. Over-identification

Answer:
D

Scenario Question 8

Carly is becoming more upset and tells her team leader, Anna, she wants to immediately leave and go home. Anna knows this isn't the best idea. What should Anna have Carly do instead?

A. Have a fellow team member drive her home
B. Phase out
C. Re-do CERT training

Answer:
B

Scenario Question 9

Javier is talking to Charlotte. Charlotte has a sprained ankle and a scratch on her head but is mainly all right and seems in good spirits. However, team leader Anna notices that Javier isn't doing so well. Javier is hyperactive and can't sit still. He also says he's beginning to feel nauseous. Anna thinks these are physiological signs of trauma. What are some psychological signs of stress that Javier might also be experiencing?

A. Isolation and withdrawal
B. Fear of recurrence
C. Feeling of invincibility
D. Mood swings
E. Self-blame
F. Refusal to leave the scene

Answer:
A, B, D, and E

Scenario Question 10

Anna pulls Javier aside to talk. Javier tells her he's been working for several hours but insists he is fine to continue. Anna thinks he should take a break or rotate to another job. What should Anna tell Javier?

A. "I think you should sit down here with Charlotte and relax. Taking a break away from here will only make you more stressed that you aren't helping."
B. "You should go outside by yourself for a little while. Don't talk to other teammates, just relax."
C. "You should take a break. Get away from the damage and survivors for a bit and regroup. You don't want your exhaustion to affect your response efforts."
D. "Take a few minutes to walk around and see all the damage. That will help you understand the scope and inspire you to work harder."

Answer:
C

Scenario Question 11

Leslie was shopping for her dad's birthday gift when the tornado hit. She has a sprained ankle and a headache. Ramona has been talking to her, and other survivors, for most of the day. She's been careful to take breaks and talk to her teammates, but Anna still sees some signs of stress in her. She thinks that Ramona wasn't as mentally prepared for this disaster as she could have been. What advice should Anna give Ramona to help her deal with stress now and in the future?

A. Exercise.
B. Connect with others.
C. Eat a balanced diet.
D. Be willing to talk to mental health professionals.

Answer:
All

Lesson Summary

This lesson discussed how to identify actions that CERT members can take to deal with the psychological stresses that are associated with disaster response.

Key points covered in this lesson include:

- To limit the effects of vicarious trauma on yourself, don't over-identify with survivors. Monitor your own reactions and use stress reducers that work for you.
- Traumatic stress may affect a survivor's cognitive functioning, physical health, and interpersonal relationships.
- When working with survivors, the CERT psychological role is to stabilize the incident scene by stabilizing individuals.

Congratulations, you've completed this lesson.

Module Summary

In Module 4: Disaster Medical Operations, you learned that victims of a disaster may need life-saving or life-sustaining treatment. You also learned how CERTs are able to help until professional responders arrive. We discussed the importance of disaster psychology, and we reviewed ways that you can cope with the stress of disaster situations.

Key points in this module included:

- The CERT goal is to stay safe and do the greatest good for the greatest number of victims
- Trauma injuries in disasters can often result in death. Sometimes these deaths can be prevented through simple, early treatment. CERT members are trained to provide this treatment until medical professionals are available to help.
- Do not apply the medical treatment skills covered in this module until you have completed classroom training.
- Medical conditions that always get priority are obstructed airway, excessive bleeding, and shock.
- The triage process is used to distinguish among those who need immediate care, those who can wait, and those who are dead.
- Clearly marked medical treatment areas and morgues help professional responders efficiently treat victims.
- To limit the effects of vicarious trauma on yourself, don't over-identify with survivors. Monitor your own reactions and use stress reducers that work for you.
- Traumatic stress may affect a survivor's cognitive functioning, physical health, and interpersonal relationships.

- When working with survivors, the CERT psychological role is to stabilize the incident scene by stabilizing individuals.

What's Next?

Now that you've completed this module, you're ready to move on to Module 5: Search and Rescue. In that module, you'll learn about practices and techniques that CERTs use during search and rescue operations. Following these practices helps keep both rescuers and victims safe in the wake of a disaster.